

FEB 22 2007

REMARKS

Claims 1-28 are pending. The Examiner argued that Figure 1 and Figure 2 should be designated Prior Art. The Applicants agree with the Examiner's assessment on Figure 1, but disagree with the Examiner's assessment on Figure 2. A replacement sheet for Figure 1 is being provided. However, Figure 2 is believed novel in the context of the associated description. Figure 2 is described with reference to streaming output peripherals. It is respectfully submitted that the Examiner cite a reference indicating that Figure 2 indeed is Prior Art.

Independent claims 1, 17, and 24 were rejected under 35 U.S.C. 102(b) as being anticipated by Inaba (4,396,987). Inaba describes a "machine tool and robot control apparatus ... adapted to perform various tasks such as attaching and detaching of a workpiece to and from the lathe LM, changing of tools, cleaning of scraps and so forth. A controller locker CTL incorporates a numerical control device for controlling the lathe and a robot control device for controlling the industrial robot. A work feeder WF is adapted to feed unworked workpieces" (col 2, line 60 – col 3, line 2). No programmable chip is mentioned. No programmable chip system including a processor is mentioned.

The independent claims recite a processor included on a programmable chip. The independent claims also recite a streaming output peripherals connected to memory on the programmable chip. Inaba only describes a board, not a programmable chip, such as a Field Programmable Gate Array (FPGA) or a Complex Programmable Logic Device (CPLD). Although the independent claims are believed allowable, the independent claims are being amended to further clarify aspects of the invention. Claims 1, 17, and 24 are being amended to recite a processor and a streaming output peripheral on the programmable chip. A memory no longer has to be on the programmable chip.

Inaba describes no processor and a streaming output peripheral on a programmable chip. Inaba only describes a board. "In the conventional system shown in FIG. 2A, the numerical control device NC and the robot control device RC each incorporate a high-capacity, non-volatile data memory DMN, DMR, and each is connected to its own external memory device (tape puncher PTP, cassette type magnetic tape EM). The processor (not shown) in each control device successively reads out the machining data or robot command data from the associated data memory DMN or DMR and performs the numerical control processing or the robot control

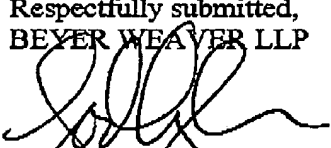
processing. Also, in order to execute the same control processing at some future date, the machining data in the data memory DMN is punched and stored in the paper tape by means of the paper tape puncher PTP, while the robot command data in the data memory DMR is entered and stored in the cassette type magnetic tape EM" (col 3, lines 37-53).

Nor would it be obvious to simply implement the Inaba system on a programmable chip. The Inaba system board requires a "tape reader" PTR and a "tape puncher" PTP (Fig 3) to be connected to a bus that is connected to the processor MPUN, the nonvolatile data memory DMN, and the working memory WMN. "The machining program punched in the paper tape is read by the tape reader PTR and stored in the non-volatile data memory DMN."

Furthermore, dependent claims 2, 18, and 25 recite a simultaneous multiple primary component fabric. A bus as described in Inaba is not a simultaneous multiple primary component fabric. A conventional bus does not allow multiple primary components access at the same time. Dependent claims 2, 18, and 25 have been amended for clarification to recite "the simultaneous multiple primary component fabric allowing a first primary component access to a first secondary component at the same time a second primary component is accessing a second secondary component." Inaba describes no such mechanism.

In light of the above remarks relating to the independent claims, the remaining dependent claims are believed allowable for at least the reasons noted above. Applicants believe that all pending claims are allowable. Should the Examiner believe that a telephone conference would expedite the prosecution of this application, the Examiner is encouraged to contact the undersigned at the number set out below.

Respectfully submitted,  
BEYER WEAVER LLP



Godfrey K. Kwan  
Reg. No. 46,850

P.O. Box 70250  
Oakland, CA 94612-0250  
(510) 663-1100